



## TECHNICAL DATA SHEET

### **CONSTRUCTION CHEMICALS WOOD WELD FAST SET POLYURETHANE ADHESIVE**

#### **PRODUCT DESCRIPTION**

Construction Chemicals Wood Weld Fast Set is a moisture-curing, single part, polyurethane adhesive, specifically designed for bonding wood to wood very fast. It can also be used to bond many types of plastic foams and other insulating materials to a wide variety of both rigid and flexible facing materials. Such composites form structural sandwich panels and insulated building boards and may be used in the manufacture of cold stores, caravans, mobile homes and offices, insulated building units etc.

#### **SURFACE PREPARATION**

Materials to be bonded should be clean and free from dust, grease and other contaminants.

A test panel should always be prepared when new materials are to be used to establish the adhesive's compatibility.

#### **ADHESIVE APPLICATION**

The adhesive can be applied by trowel, notched scraper or polybottle to one surface only of each glue line.

The amount required will vary according to the porosity/smoothness of the substrates and the means of application, but will normally be in the range 80 – 140 grams per square metre.

The panel is then assembled as soon as possible and placed under pressure within 5 minutes.

The pressure required will depend to a great extent on the nature of the substrates but is usually in the range 0.5 to 0.9 bar.

Pressure should be maintained until the adhesive is sufficiently cured to permit handling of the bonded item. Full cure of the adhesive is not obtained for 24 hours and handling within this period should be kept to a minimum.

The open time and cure cycle to permit handling will vary according to:

1. Temperature
2. Weight of adhesive applied
3. Method of working
4. Substrates being bonded

and should always be determined by experiment.

## Processing Guide

Temperature °C	15	20	25
Open time minutes	10	6	3
Cure time minutes	30	20	10

## CLEAN DOWN

Construction Chemicals Wood Weld Fast Set when uncured can be removed with cleaning Solvent 6 or Solvent 9.

Cured product will prove very difficult to remove: however, soaking in Solvent 6 overnight will soften the adhesive.

## STORAGE AND HANDLING

Construction Chemicals Wood Weld Fast Set is a moisture-sensitive adhesive and, left in contact with the open atmosphere, will eventually gel. For this reason, Construction Chemicals Wood Weld Fast Set is protected with a blanket of Nitrogen in the container prior to despatch, which forms a dry, inert layer on top of the adhesive.

The above figures do not constitute a specification. They represent typical values obtained for this product.

## HEALTH AND SAFETY

Before using this product, ensure that you have been supplied with and have read carefully the following information:

- The hazard label (complying with CPL Regulations 1995) applied to the container
- Construction Chemicals Material Safety Data Sheet for this product

Construction Chemicals Wood Weld Fast Set contains Diphenyl Methane Diisocyanate (MDI) which is harmful if inhaled. Use with adequate ventilation and avoid contact with skin and eyes by wearing suitable protective gear.

The vapour pressure of MDI at 20°C is low and therefore by normal production techniques like roller coating, spreading or beading, very little diisocyanate vapour will be present in the air.

After contact with the skin, wash immediately with soap and water.

After contact with eyes, irrigate with copious amounts of water and seek medical advice.

## TECHNICAL DATA

<b>Base</b>	Polyurethane
<b>Solids</b>	100%
<b>Viscosity</b>	4000 ± 500 cps @ 25°C
<b>Colour</b>	Brown
<b>Tack life</b>	N/A
<b>Coverage</b>	Up to 12.5m <sup>2</sup> per kg
<b>Cleaner</b>	Solvent 6 or 9
<b>Flash Point</b>	Above 150°C
<b>Shelf Life</b>	6 months unopened

# PRODUCT SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product name: Woodweld Fast Set  
Company: Construction Chemicals (UK) Ltd  
75 Town Green Street, Rothley, Leicester LE7 7NW  
Tel: 0116 2301955  
Fax: 0116 2301944

## 2. COMPOSITION/INFORMATION OF INGREDIENTS

Ingredient Name	Content	Health (Class)	Risk (R No)
Diphenylmethane-4,4'-Diisocyanate	19-23%	Xn	R42/43 R36/37/38

## 3. HAZARDS IDENTIFICATION

Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.

## 4. FIRST AID MEASURES

Eye contact: Contamination of the water must be treated by thorough irrigation with water, with the eyelids held open. A doctor (or eye specialist) should be consulted immediately.

Skin contact: Remove mechanically and wash off with plenty of soap and water, carefully apply cream to the clean skin.

Ingestion: DO NOT induce vomiting, seek medical advice. If vapour is inhaled in high concentrations take the person to fresh air and keep warm, let them rest; if there is difficulty in breathing, seek medical advice.

## 5. FIRE FIGHTING MEASURES

Extinguishing media: Water spray, extinguishing powder, CO2, foam, dry powder.

## 6. ACCIDENTAL RELEASE MEASURES

Do not empty into drains. Remove mechanically; cover remainder with wet, absorbent material (eg sawdust, chemical binder based on calcium silicate hydrate, sand). After approx 1 hour, transfer to waste container and do not seal (evolution of CO2!) Keep damp in a safe ventilated area for several days.

## 7. HANDLING AND STORAGE

Keep container tightly closed and dry. Avoid product temperatures above 25°C and below 5°C  
Ensure adequate ventilation or exhaust ventilation in the working area.  
No special measures against fire or explosion required.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits:

	<u>STD</u>	<u>Long term exposure</u>	<u>Short term exposure</u>
Disphenylmethane-4,4'-diisocyanate	MEL	0.02mg/m3	0.07mg/m3

Wear suitable protective clothing, protective gloves (made of PVC or rubber) and protective goggles/mask. Respiratory protection required in insufficiently ventilated working areas. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

In case of hypersensitivity of the respiratory tract (eg asthmatics and those who suffer from chronic bronchitis) it is advisable to work with the product.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work. Keep working clothes separate. Take off immediately all contaminated clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Dark brown  
Odour: Earthy, musty  
pH: N/A  
Flashpoint (°C): Above 200°C  
Flammability: Non flammable liquid  
Auto ignition temperature: above 400°C  
Oxidising properties: N/A  
Viscosity at 25°C: 400 cP Approx

Vapour pressure: Below 0.001 hPa @ 25°C  
Relative density @ 20°C: 1.12 g/cm<sup>3</sup>  
Solubility in water: Insoluble - reacts

## 10. STABILITY AND REACTIVITY

Thermal decomposition Polymerizes at above 260°C with evolution of CO<sub>2</sub>.  
Hazardous decomposition products No hazardous decomposition products when stored and handled correctly.  
Hazardous reactions: Exothermic reaction with amines, alcohols, acids and alkali.  
Reacts with water forming CO<sub>2</sub>. Closed containers may rupture owing to increase of pressure.  
Further information Open pressurised containers carefully to release pressure.

## 11. TOXICOLOGICAL INFORMATION

LD50 oral (rats) above 15000mg/kg  
LC50 Inhalation (rats) 1 370 mg as aerosol / m<sup>3</sup>, 4 h of exposure  
Effects of exposure  
Eyes Strong irritation, lachrymation, burning  
Skin Dehydration, possible sensitisation

Special properties/effects Respiratory system (vapour in high concentration) – Irritation of the mucous membranes in the nose, throat and lungs, dryness of the throat, pressure on the chest, sometimes accompanied by breathing Difficulties and headaches. Delayed appearance of the symptoms and allergic reaction in susceptible person's possible.

## 12. ECOLOGICAL INFORMATION

Do not allow to escape into waters; wastewater or soil. The product reacts with water at the interface forming CO<sub>2</sub>, and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (eg detergents) or by water soluble solvents.

## 13. DISPOSAL RECOMMENDATIONS

Waste Disposal Disposal of the wet adhesive is governed by the Control of Pollution (Special Wastes) Regulations 1980. Non-recoverable waste should be disposed of via a licensed waste disposal contractor.

## 14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

## 15. REGULATORY INFORMATION

CHIP Regulation 9  
Label for supply Harmful – contains 4,4' Diphenylmethane diisocyanate  
Classification Xn  
CHIP Risk Phrase R36/37/38 Irritating to eyes, respiratory system and skin  
R42/43 May cause sensitisation by inhalation and skin contact  
S23 Do not breathe vapour/spray  
S26 In case of contact with eyes, rinse immediately with plenty of water  
S38 In case of insufficient ventilation, wear suitable respiratory equipment  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

## 16. OTHER INFORMATION

The data contained in this Safety Data Sheet has been supplied as required by the Chemicals (Hazard Identification and Packaging) Regulations 1993, as amended, for the purpose of protecting the health and safety of industrial and commercial users who are deemed capable of understanding and acting on their own.

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